AV-290 FAST-SET ™ Part A

SECTION 1. IDENTIFICATION

Product Identifier	AV-290 FAST-SET Part A
Other Means of Identification	Hydrophobic Grout
Recommended Use	Industrial Use Only.
Restrictions on Use	Not applicable.
Manufacturer/Supplier Identifier	Avanti International, 822 Bay Star Blvd, Webster, TX, 77598, USA, 281.486.5600, avantigrout.com
Emergency Phone No.	ChemTrec, 800.424.9300
Date of Preparation	March 27, 2018

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2B; Respiratory sensitization - Category 1; Skin sensitization - Category 1B; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2

Label Elements

Signal Word:
Danger
Hazard Statement(s):

H332	Harmful if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):
Prevention:

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands and skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves.
P284	In case of inadequate ventilation wear respiratory protection (NIOSH approved air-purifying respirator with an organic vapour cartridge).

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water/ Soap
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice or attention if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice or attention.
P337 + P313 If eye irritation persists: Get medical advice or attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal:
P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Polymethylene polyphenyl isocyanate	9016-87-9	50	PMDI	
4,4'-Methylenediphenyl diisocyanate	101-68-8	50	4,4-MDI	

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

Skin Contact

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice or attention.

Ingestion

Rinse mouth with water. Call a Poison Centre or doctor if you feel unwell.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Immediate Medical Attention and Special Treatment

Target Organs

Respiratory system, skin.

Special Instructions

Monitor cardiovascular function.

Medical Conditions Aggravated by Exposure

Respiratory conditions, asthma, dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media

Not applicable.

Specific Hazards Arising from the Product

Closed containers may rupture violently when heated releasing contents.
Very toxic carbon monoxide, carbon dioxide; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides; very toxic polycyclic aromatic hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray. Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.
Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Contaminated absorbent poses the same hazard as the spilled product. Knock down vapour with fog or fine water spray. Remove or recover liquid using pumps or vacuum equipment. Flush spill area. Dike and recover contaminated water for appropriate disposal. Store recovered product in suitable containers that are: covered.

Other Information

Contact supplier, local fire and emergency services for help.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe in this product. Prevent skin contact. Do not get in eyes, on skin or on clothing. Avoid generating vapours or mists. Prevent uncontrolled release of product. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Wear personal protective equipment to avoid direct contact with this chemical. Keep containers tightly closed when not in use or empty. General hygiene considerations: do NOT smoke in work areas. Do NOT eat, drink or store food in work areas. Consider using a double locker-shower facility. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Conditions for Safe Storage

Store in an area that is: cool, ventilated.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Polymethylene polyphenyl isocyanate	0.005 ppm			0.02 ppm		
4,4'-Methylenediphenyl diisocyanate	0.005 ppm			0.02 ppm		

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Wear a chemical splash suit and respiratory protection.
Suitable materials are: Chemical Resistant Gloves: neoprene rubber, nitrile rubber, polyvinyl chloride, butyl rubber, Viton®/butyl rubber. Chemical Resistant Suit: Barrier® (PE/PA/PE), Silver Shield®, Saranex®.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s). And wear a NIOSH approved air-purifying respirator with an organic vapour cartridge. Either full-face piece or half-face piece with splash goggles.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Dark brown liquid. Particle Size: Not available
Odour	Aromatic
Odour Threshold	Not applicable
pH	Not available
Melting Point/Freezing Point	Not available (melting); < -2 ºF (-19 ºC) (freezing)
Initial Boiling Point/Range	392 ºF (200 ºC)
Flash Point	392 ºF (200 ºC)
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)
Vapour Pressure	0.00001 mm Hg (0.00000 kPa) at 68 ºF (20 ºC)
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.22 at 77 ºF (25 ºC)
Solubility	Practically insoluble in water; Highly soluble in aromatic hydrocarbons (e.g. toluene).
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); 200 centipoises at 77 ºF (25 ºC) (dynamic)

Other Information

Physical State	Liquid
Molecular Formula	Not available

Molecular Weight	Not available
Surface Tension	Not available
Critical Temperature	Not available
Electrical Conductivity	Not available
Vapour Pressure at 50 deg C	Not available
Saturated Vapour Concentration	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Self-reactive.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Polymerizes in the presence of alkaline conditions (high pH), water or humidity. Releases a large amount of heat and pressure. Container may burst.

Conditions to Avoid

Water, moisture or humidity. Alkaline conditions (high pH).

Incompatible Materials

Polymerizes on contact with: alcohols (e.g. ethanol), alkanolamines (e.g. triethanolamine), amines (e.g. triethylamine), glycols (e.g. ethylene glycol), reducing agents (e.g. hydroquinone), water.
Not corrosive to metals.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Polymethylene polyphenyl isocyanate	2 mg/L (rat) (aerosol)	> 2000 mg/kg (rat)	> 9400 mg/kg (rabbit)
4,4'-Methylenediphenyl diisocyanate	2 mg/L (rat) (aerosol)	> 2000 mg/kg (rat)	> 9400 mg/kg (rabbit)

Skin Corrosion/Irritation

Animal tests show moderate or severe irritation.

Serious Eye Damage/Irritation

Animal tests show very mild irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

No information was located.

Skin Absorption

No information was located.

Ingestion

May be harmful based on animal tests. May cause irritation of the mouth, throat and stomach.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Causes lung injury.

Respiratory and/or Skin Sensitization

Respiratory sensitizer. Skin sensitizer.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Polymethylene polyphenyl isocyanate	Group 3	Not designated	Not Listed	Not Listed
4,4'-Methylenediphenyl diisocyanate	Group 3	Not designated	Not Listed	Not Listed

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Not harmful to aquatic life, based on acute toxicity tests.

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Polymethylene polyphenyl isocyanate		> 500 mg/L (Daphnia magna (water flea))	1640 mg/L (Desmodesmus subspicatus (algae); 72-hour; static)	
4,4'-Methylenediphenyl diisocyanate		> 500 mg/L (Daphnia magna (water flea))	1640 mg/L (Desmodesmus subspicatus (algae); 72-hour; static)	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents and container in accordance with local, regional, national and international regulations. Treat waste in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 2** **Flammability - 1** **Instability - 1**

SDS Prepared By Avanti International

Date of Preparation March 27, 2018

Date of Last Revision June 06, 2019

Revision Indicators Not applicable.

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists
IARC = International Agency for Research on Cancer
NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health
NTP = National Toxicology Program
OSHA = US Occupational Safety and Health Administration
RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA (“BIOVIA”). Available from Canadian Centre for Occupational Health and Safety (CCOHS).